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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/636,112	08/07/2003	Malcolm David Dick Lambert	DP-303841	1579 .
22851 7590 01/26/2007 DELPHI TECHNOLOGIES, INC.			EXAMINER .	
M/C 480-410-202			KIM, CHRISTOPHER S	
PO BOX 5052 TROY, MI 48007			ART UNIT	PAPER NUMBER
,			3752	
	* .			
SHORTENED STATUTOR	Y PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
3 MONTHS		01/26/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

		Application No.	Applicant(s)			
Office Action Summary		Application No.				
		10/636,112	LAMBERT ET AL.			
		Examiner	Art Unit			
		Christopher S. Kim	3752			
	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
WHIC - Exter after - If NO - Failu Any r	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DATE of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. Period for reply is specified above, the maximum statutory period were to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	TE OF THIS COMMUNICATION  (6(a). In no event, however, may a reply be time  (iii) apply and will expire SIX (6) MONTHS from cause the application to become ABANDONEI	l. ely filed the mailing date of this communication. 0 (35 U.S.C. § 133).			
Status						
1)⊠	Responsive to communication(s) filed on <u>06 De</u>	ecember 2006.				
<i>,</i> —	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.					
3)	☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Dispositi	on of Claims					
4)	Claim(s) 24,31-36 and 39 is/are pending in the	application.				
	4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.						
6)⊠	Claim(s) <u>24,31-36 and 39</u> is/are rejected.					
•	Claim(s) is/are objected to.					
8) 🗌	Claim(s) are subject to restriction and/or	election requirement.				
Application Papers						
9)	The specification is objected to by the Examine	r.	•			
10)⊠ The drawing(s) filed on <u>06 December 2006</u> is/are: a) accepted or b)⊠ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority u	ınder 35 U.S.C. § 119					
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a)⊠ All b)□ Some * c)□ None of:						
1. ☐ Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No. <u>09/654,458</u> .						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s)						
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date						
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date  5) Notice of Informal Patent Application 6) Other:						

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### **DETAILED ACTION**

### Continued Examination Under 37 CFR 1.114

- 1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 6, 2006 has been entered.
- 2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

## **Drawings**

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "first coating...having a higher thermal conductivity than the...nozzle body" recited in claim 24 and the "tip region ... is coated with a material having a lower thermal conductivity than...the nozzle body" recited in claim 32 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

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prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

# Claim Rejections - 35 USC § 112

4. Claims 24, 31-36 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 24, 35 and 39, the preamble of the claim recites an injection nozzle (subcombination) but the body of the claims recite limitations defining spatial relationship between the injection nozzle and the combustion space (combination). It is uncertain whether applicant is claiming a subcombination or a combination.

Claim 32 recites "a part of the tip region of the nozzle body is coated with a material having a lower thermal conductivity than the thermal conductivity of the nozzle

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body." Its parent claim 24 defines a first coating which as a higher thermal conductivity than the nozzle body. It appears that claim 32 defines a species mutually exclusive from that which is defined by claim 24. Claim 39 contains similar recitation directed to the second coating.

Claim 39 recites "a tip region" which appears to be a double inclusion of the "tip region" recited in claim 24.

Claim 39 defines the first coating having a lower thermal conductivity than the nozzle body which directly contradicts the first coating defined in claim 24.

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (571) 272-4905. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher S. Kim Primary Examiner Art Unit 3752

CK